

REMARKS

I. Status of Claims

Claims 1-16 are pending in this application, the only independent claim being claim 1. By this Amendment, claims 1 and 2 are amended, claims 3-5 are withdrawn from consideration pursuant to a restriction requirement, and claims 6-16 are newly presented.

II. Summary of Action

In the Action, claims 3-5 were withdrawn from consideration in the present application pursuant to a restriction requirement, and claims 1 and 2 were rejected under 35 U.S.C. 103(a), as unpatentable over U.S. Patent No. 5,659,307 (Karidis). Reconsideration and withdrawal of the restriction requirement and the rejection respectfully are requested in view of the above amendments and the following remarks.

III. Response to Restriction Requirement

In a telephone conversation on August 16, 2004, the Examiner advised Applicants' representative that claims 1-5 were subject to a Restriction Requirement as follows: Group I, claims 1 and 2; and Group II, claims 3-5. In that telephone conversation, Applicants' representative provisionally elected, with traverse, the subject matter of Group I, including claims 1 and 2.

In the Official Action, the Restriction Requirement was renewed. The basis for the Restriction Requirement is that the inventions of Groups I and II are distinguished as subcombinations that are separably usable.

Applicants hereby affirm the oral election, with traverse, of Group I (claims 1 and 2) made in the telephone communication of August 16, 2004. However, without conceding the propriety of the Examiner's characterization of the subject matter recited in the claims of Group I and II, Applicants submit that the subject matter recited in Groups I and II is closely related. A search of the subject matter of one group therefore would substantially overlap

with a search of the subject matter of the other group. Also, Applicants note that subject matter recited in claims 3-5 has been presented in new claims 7-12 depending from base claim 1, thereby reciting these features in combination therewith. Accordingly, Applicants submit that it would not be an undue burden to search the subject matter of both groups together in a single application, and respectfully request that the Restriction Requirement be withdrawn and that all pending claims be considered on the merits in the present application.

IV. Formal Amendments

The specification and the Abstract have been reviewed and amended as to matters of form, including English, spelling, grammar, idiom, syntax and the like. No new matter has been added.

V. Claim Amendments

The rejection of claims 1 and 2 over the cited art respectfully is traversed. Nevertheless, without conceding the propriety of the rejection or the Examiner's characterization of the art (see discussion below), claims 1 and 2 have been amended more clearly to recite various novel aspects of the claimed invention, with particular attention to the Examiner's comments. Support for the proposed amendments may be found in the original application. No new matter has been added.

Newly presented claims 6-12 have been added to provide Applicants with an additional scope of protection commensurate with the disclosure. Support for the feature recited in claim 6 may be found in the original application, e.g., in Figs. 2C, 3A and 3B and the corresponding written disclosure at page 16, lines 16-22. Support for the features recited in claims 7-12 may be found in the original application, e.g., in original claims 3-5. Support for the features recited in claims 13-16 may be found in the original application, e.g., in Fig. 1 and the corresponding text at page 14, line 22 - page 15, line 19. No new matter has been added.

VI. The Claimed Invention

The present invention relates to a novel foldable keyboard. In one aspect, as now recited in independent claim 1, the foldable keyboard comprises first, second, and third keyboard units which are connected with one another, the first, second, and third units being horizontally aligned in this order during use of the keyboard and stacked one above another during non-use; and a main link connecting the first, second, and third keyboard units on a side end surface of each keyboard unit, one end of the main link being rotatably connected with the first keyboard unit on a side end surface thereof, a midpoint of the main link being rotatably connected with the second keyboard unit on a side end surface thereof, and the other end of the main link being rotatably connected with the third keyboard unit on a side end surface thereof.

In this aspect, as discussed in greater detail in the present application, three keyboard units of a foldable keyboard efficiently may be folded into a secure, compact, portable state by providing a main link that is rotatably connected at one end to the first keyboard unit, rotatably connected at the center to the second keyboard unit, and rotatably connected at the other end to the third keyboard unit. In one embodiment, the main link is rotatably connected on respective side end surfaces of the first, second and third keyboard units. In this manner, the first, second and third keyboard units are rotatable so as to stack one on top of the other in the non-use state.

In another aspect, the keyboard further is provided with first and second auxiliary links that operate as parallel links with the main link (i.e., forming a collapsing parallelogram mechanism, as shown, for example, in Figs. 2A-2C and 3A-3C). These auxiliary links further may be formed with guide grooves, which receive connectors (e.g., screws) of the main link when unfolded during use of the keyboard (see, e.g., Fig. 2A and 2B).

VII. Prior Art Distinguished

Applicants submit that the prior art fails to anticipate the claimed invention.

Moreover, Applicants submit that there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

The Karidis '307 patent relates to a keyboard with biased movable keyboard sections, and discloses various embodiments including multiple keyboard pallets and alternative movement mechanisms for moving the multiple pallets relative to one another. However, Applicants submit that the Karidis '307 patent fails to disclose or suggest at least the above-discussed features of the claimed invention. In particular, Applicants submit that the Karidis '307 patent fails to disclose or suggest a foldable keyboard having first, second and third keyboard units connected to one another and movable between one configuration, in which the first, second and third keyboard units are horizontally aligned in that order during use, and disposed one above another during non-use, as disclosed and claimed in the present application. Further, Applicants submit that the Karidis '307 patent fails to disclose or suggest such first, second and third keyboard units in combination with the feature of a main link connecting the first, second and third keyboard units, where one end of the main link is rotatably connected to the first keyboard unit, a midpoint of the main link is rotatably connected to the second keyboard unit, and the other end of the main link is rotatably connected to the third keyboard unit, as disclosed and claimed in the present application.

Rather, the Karidis '307 patent merely discloses: (1) various embodiments including two keyboard pallets; (2) various movement mechanisms for moving two keyboard pallets relative to one another; and (3) one embodiment including three keyboard pallets, with no disclosure whatsoever regarding a movement mechanism for moving the three pallets relative to one another.

Specifically, the Karidis '307 patent discloses several embodiments of a keyboard including *two* keyboard pallets that are movable relative to one another from a usable configuration to a non-use or storage configuration (see Figs. 1B, 1C, and 2A-2C).

The Karidis '307 patent discloses various embodiments of movement mechanisms for moving two keyboard pallets relative to one another (see Figs. 3A-3G, 4, 5A-5E and 6, and the corresponding written disclosure). In each of these embodiments, the mechanism slidably moves two pallets relative to one another in a plane.

The Karidis '307 patent also discloses one embodiment of a keyboard including *three* pallets 162, 164 and 166 (see Figs 7A and 7B). However, the Karidis '307 patent fails to disclose any movement mechanism for relative movement among the first, second and third keyboard pallets, let alone the claimed features of a 'main link' as discussed above. In fact, the Karidis '307 patent teaches (1) that "the center pallet 164 is **stationarily mounted** to the computer base", and (2) that "the left and right pallets [162], 166 are movably mounted to the base in a general mirror-like fashion", where "to move the left and right pallets 162, 166 into their operational positions, the left pallet 162 is first moved in the outward lateral direction A and the right pallet 166 is moved in the opposite lateral direction B" and "after a predetermined [amount] of lateral movement, the left and right pallets 162, 166 are then both moved forward in the direction C" (emphasis added). In this regard, Applicants submit the movement mechanism illustrated in Fig. 9 of the Karidis '307 patent relates to a *two* pallet embodiment, not to the three pallet embodiment of Figs. 7A and 7B (see, e.g., the disclosure at column 14, lines 52-54, which states "The base plate 224 has three 'L' shaped cam slots 230L, 230R for each keyboard pallet (not shown)." Fig. 9 illustrates three slots for each of only two pallets, a left pallet and a right pallet.). Moreover, Applicants submit that it would not be obvious to adapt this mechanism to a three keyboard pallets structure to achieve

movement of the pallets in a mirror-like fashion, as suggested with respect to Figs 7A and 7B of the Karidis '307 patent.

Nowhere does the Karidis '307 patent disclose or suggest an embodiment including three keyboard units and a main link rotatably connecting such three keyboard units for relative movement between a horizontally aligned orientation and a stacked orientation, as disclosed and claimed in the present application.

For the above reasons, Applicants submit claim 1 is allowable over the cited art.

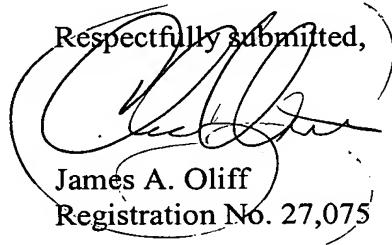
Claims 2 and 6-16 depend from claim 1, and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of base claim 1, and is believed allowable in its own right. Independent consideration of the dependent claims respectfully is requested.

Finally, claims 3-5 recite features that parallel features recited in claims 7-12; accordingly, Applicants submit that it would not be an undue burden to search these features with respect to the claimed inventions recited in claims 3-5 in the same application, and respectfully request that the restriction requirement be withdrawn and that all pending claims 1-16 be examined in the present application.

VIII. Conclusion

Applicants believe the present Amendment is responsive to each of the points raised by the Examiner in the Official Action and the Examiner Interview, and submit that the application is in condition for allowance. Favorable consideration of the claims and passage to issue of the present application at the Examiner's earliest convenience earnestly are solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Christopher Philip Wrist
Registration No. 32,078

JAO:CPW/djb

Attachments:

Substitute Abstract
Substitute Specification with Marked-up copy of Application

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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